

A
PRACTICAL ESSAY
ON
RINGWORM OF THE SCALP,
SCALLED HEAD,
AND THE OTHER SPECIES OF
PORRIGO,

BY
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Medical and Chirurgical Society, &c.*

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TO

RICHARD OGLE, Esq.

*Surgeon and Medical Superintendant of the Parochial
Infirmary of Saint Giles in the Fields and Saint
George Bloomsbury ;*

THIS ESSAY IS INSCRIBED,

As a mark of respect for his


PROFESSIONAL TALENTS

and esteem for his

PRIVATE CHARACTER,

By his Friend,

THE AUTHOR.



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CHAPTER IV

The first of the three main branches of the subject is the study of the history of the language. This is a branch of the subject which has of late years attracted much of the attention of scholars, and has become one of the most popular and interesting of the sciences. It is a branch of the subject which has of late years attracted much of the attention of scholars, and has become one of the most popular and interesting of the sciences. It is a branch of the subject which has of late years attracted much of the attention of scholars, and has become one of the most popular and interesting of the sciences.

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PREFACE.

IN committing the following pages to the press ; I hope I am not over-rating their merits in supposing their details calculated to add something to the stock of information we at present possess on the different subjects to which they relate. If the reader should coincide with me in this opinion ; I shall be amply remunerated for the little trouble they may have cost me. I am somewhat anxious for this result ; as the good opinion of the world is not of such little importance to me, as to render me careless of it : and indeed I believe there is much truth

PREFACE.

in the remark that he who is in this latter situation respecting the "worlds good word" is very near deservyng its severest censures.

That the principles of management of these diseases, which I have endeavoured to point out; have long since proved their correctness in practice, I am entitled to alledge in their behalf: and if any of my readers, whose professional pursuits have given them less extensive opportunities of observation should find any thing new in any part of my remarks; I confidently hope to escape the conclusion that, that "new is not true."

Through the kindness of my friend Mr. OGLE, the opportunities of observation, afforded by a free admission to the interior of a public Institution, constantly abounding with cases of the

PREFACE.

different species of the diseases on which I have ventured to write ; have been always open to me: and I feel that I am producing a strong claim to the attention of my professional brethen to the following pages, in the assertion that a close attention to the principles of practice there detailed ; has alike subdued cases of ten days standing, and those of as many years.

That the minuteness of attention, necessary to the successfully combating on such principles ; a disease of years standing on the scalp, will be generally considered a most disgusting task I am perfectly aware : but a Surgeon ought to have no ideas or feelings on such points, in common with the rest of the world : and the most obnoxious fætor which disease can produce, should be encountered

PREFACE.

by him, with as much indifference as the perfumes of the Toilet, where the objects in view are the removal of such disease, and an alleviation of the miseries of our fellow creatures.

65, GREAT RUSSELL STREET,

JUNE 10, 1821.

CHAP. I.

Preliminary Remarks on the Origin of the Hair, and its Influence in Diseases situated on the Scalp.

IN introducing a few remarks on the above subject, previous to the consideration of those diseases of which I am about to speak, I trust I shall not be accused of any irregularity, or of wasting the time and attention of my readers on matters already completely understood, or irrelevant to my purpose.

It is not to any anatomical or physiological discovery that I presume to lay claim ; for I am aware that many of the facts I have to mention, have been long well known to the medical world: though their connection with the phenomena of diseases of the scalp

appears to have been hitherto either altogether overlooked or considered of far less importance than that which I am disposed to attach to it.

That Dr. Willan, whose work on cutaneous diseases is referred to as a standing authority on such subjects; should not have seen the connection to which I allude, is however less extraordinary than that he should have had time for that minute attention to circumstances, and that personal superintendence of the application of remedies, which first brought it to my notice.

Much of the time and attention of this distinguished physician have been occupied in the study of cutaneous disease. His elaborate works on this subject afford abundant proofs of the truth of this assertion: and this consideration may act as a caution to me against advancing any thing which he may not have observed, as remarks of my own, without being fully convinced of their correctness.

To him must be awarded the credit of the best attempt at establishing a method of distinction between diseases of an apparently numerous and obstinate class : of the management and definite characters of which but little of importance was known previous to his time. For it cannot be doubted, that the work which he began and contemplated the successful completion of, would have contained the result of long continued and extensive observation, not only of those diseases the subjects of the present essay ; but every other which he intended to notice, in a field abounding with opportunities. The mind chiefly occupied however, by that species of study and line of practice, where the habits of pathological reasoning are applied to the most vitally important diseases of the body : where frequent recurrence to, and reflection on the important laws of the animal economy which govern diseases of a constitutional character, occupy the most material portion of the attention ; feels little disposition to

direct its energies to the consideration of others possessing so comparatively small a degree of importance as the present subject.

To this consideration probably, is to be imputed those deficiencies in his work which have been considered as detracting from its merits; as well as that oversight among Medical men generally, which has hitherto consigned very many of the kinds of cutaneous disease to what may be termed a practice bordering on empiricism, if not chargeable with its worst characteristic features. Though the practical utility of that kind of classification which Willan adopted however, and which has been ably concluded by Dr. Bateman has been questioned; it must be confessed that we are not likely soon to see an equally comprehensive work on this subject; or one more calculated to convey correct ideas of the external characters of the different species of cutaneous disease.

As a proof of our deficiency of sound principles in the treatment of such diseases,

I need only refer to the common management of that very common form of the affection, the chief subject of my present essay: the *Porrigo Scutulata* of Willan or common Ringworm. Who has not heard of numberless topical applications, as opposite in their chemical and medicinal properties, as can well be conceived: yet each relied on singly for a time as a decided specific? And how common is it in the treatment of this affection; to see Medical men changing one preparation of mercury for another of sulphur—a solution of lunar caustic for a decoction of tobacco as applications: with no other idea than the possibility of falling by chance on something which *may* be successful?

Even up to the present period, it is a disputed point whether animalculæ exist in the vesicles and pustules of the Itch; and consequently whether the universal specific for the disease has a known principle of action or not; and simple ulcerations arising origi-

nally from follicular obstruction or some such trifle have existed for months, and undergone the ordeal of “hundreds of plasters and pills,” which might have been removed by the simple application, on principle, of an adhesive strap.

With respect to the other species of *Porrigo* and in some other cutaneous diseases which I could mention, the same degree of deficiency of observation of their essential characters, is observable in the writings of different authors. The important features of the diseased action of the vessels of the part having been overlooked, or considered of less importance, than the external appearance, the consistence, colour, or structure of a scab: the neglected filthy accumulation of the secretions of the diseased parts!

Some of the species of *Porrigo* have been stated to be occasionally making their appearance on parts of the body remote from that in which they are at first discovered. I shall have to allude to this part of my subject

more fully in the course of the following pages; but as such statement, if received with indiscriminate confidence, appears likely to preclude a proper understanding of the true pathology of the most common and obstinate among them—that so constantly occurring on the scalp: a few remarks on this point may not be improperly introduced.

In speaking of the *P. Favosa* and *P. Scutulata* of Willan, or indeed, in making use of his terms or classification at all; I must not be understood as admitting their propriety so far as to form a guide, either for myself or others, in our practice in, (whatever it may do in the discussion of) these particular diseases. The most superficial enquiry will easily discover so great a dissimilarity between these two more particularly; as to justify the opinion, that in placing them in his classification under one head the use and object of classification in disease, have not been sufficiently borne in mind. There is no point of importance, except that the matter of each

is capable of exciting its own proper disease on any part of the body ; in which they agree, while, as will be seen in the course of the following pages ; the most important features of each disease, have a very wide difference of character.

Though the enlarged pustules of the favous species sometimes appear on the arms, body, or legs, simultaneously with the affection of the scalp, where the disease appears to originate in some constitutional disorder, yet in the majority of those cases which have fallen under my notice where the *infection* could be traced, a considerable time elapsed after its first appearance on any spot, before other pustules shewed themselves on distant parts of the body : occurring then as the obvious effect of the application of the matter discharged from the original sore* and terminating in a few days of its own accord.

* In plate the second a very good instance of this mode of extension is shewn. The pustules on the fore arm having gone through their course, and the scabs

On the scalp only, from causes hereafter to be mentioned, does the *Porrigo Favosa* wear an obstinate character : and whether originating here or in other parts, the rapidity with which the pustules go through their course and rupture the cuticle ; the very large

having fallen off : the dark purplish red skin, the usual appearance in such cases, still remains ; while that on the upper, which occurred from the application of the matter of the preceding in the flexion of the lower arm upon it ; exhibits a state of the disease proportionably less advanced towards a spontaneous cure : the activity of the secretion having subsided, the scab produced by it is represented drying and near falling off.

This plate will likewise give some idea of the manner in which the disease will terminate on parts not subject to irritation from extraneous causes ; and where common attention to cleanliness is observed. That these are the only circumstances necessary to be attended to in its management beyond a little alterative medicine, where obvious disorder of the stomach and bowels exist, I am well satisfied. When situated on the scalp, it requires just that difference, or modification of treatment, which the presence of extraneous bodies on any kind of sore renders necessary : I hope to be able in the following pages, satisfactorily to shew the influence which in this point of view, the hair has in keeping up the excitement of a disease once established among it, and to explain in this way the causes of the obstinacy of its worst forms.

quantity of the fluid they contain, and the consequently more ready application of it to other parts, will often give rise to the opinion of a simultaneous origin where this has not occurred.

That *Porrigio Scutulata*, or Ringworm of the scalp, may be identified with a cutaneous affection commonly known by the same name, and sometimes appearing on other parts of the body ; (and which appears to me to resemble the description of *P. Lupinosa* very slightly) I more than suspect, though I have not observed any allusion to such connection in the latest publications on this subject : the descriptions and remarks of those authors whom I have consulted, seeming to apply exclusively to the disease on the scalp.

With respect to these two species then, the inference I have drawn from my own observation is, that though they are both now and then appearing on other parts besides the scalp, yet when seen in such

parts, that they are much more easily managed ; in short, that they lose their characteristic obstinacy, and are as easily removed, and with as little mischief to the skin as the most trifling cutaneous affections.

Negligence and filthy habits, have an influence in nursing up and encouraging cutaneous diseases of every kind, of a most extraordinary nature ; and perhaps those which are the subjects of the present essay are rarely seen in their worst forms, without some increase of strength and obstinacy from these causes. In any case, where the secretions of the disease possess the power of affecting parts previously in a healthy state, the facility which such habits afford of extending it is sufficiently obvious, and explains very fully the occasional occurrence of the disease on the forehead, temples, neck, &c. apparently spreading from the scalp to these parts.

To proceed to our consideration of the

structure and peculiarities of the scalp as connected with the diseases of this part. I am not unaware that I have been preceded in some of the opinions I have to give, some time since: and that by an author, who evinces more of the spirit of reasoning, likely to lead to good results, as regards the managements of cutaneous diseases generally, than most others whom I have been led to consult.

An anatomical description of these parts has been given in the work to which I allude which appears to be sufficiently minute to answer the purpose for which it was intended. But as a difference of opinion exists between the author and myself on some essential points regarding the pathology of the disease on which he has written; I shall take leave to offer another, somewhat more minute; but necessary to the understanding of the true characters of such disease, and the causes of its usual obstinacy.

The greater degree of thickness and density

of the scalp would lead us, *a priori*, to suspect that it had other offices to perform beyond those of the skin in other parts of the body. Did it not appear to have no connection with the bulbous roots of the hair, we should probably assign to it as others have done, part of the office of producing and nourishing this appendage of the cutis. There can be no doubt, however, that the hairs have their origin completely beneath the under surface of the cutis of this part, and derive their support immediately from the adipose membrane here disposed, and apparently having a particular arrangement for this purpose.

The layer of adipose membrane extended with different degrees of thickness on the inner surface of the cutis on different parts of the body, assumes under the scalp a material difference of character. It is closely attached to the cutis, and on superficial examination, appears partially interwoven with the inner surface of this integument.

It is firmly attached also to the bulbs of the hair, which seem to be implanted in it.

The loose reticular membrane distributed on the head between this structure and the pericranium appears to answer a purpose with respect to it very similar to one of those of the Pia mater with the brain ; and if the minuteness of the dissection does not deceive us, it sends off portions which dip down into and divide the adipose structure into portions having a rounded capsular form ; in the centre of each, of which three, four, or more hairs, appear to originate. Be this as it may however, the origin of the hair in this structure, and its complete independence of the cutis as regards its nourishment, is made sufficiently obvious, by an incision of a portion of the scalp previously removed from the head, just through the dense structure of the cutis and the turning one portion back on the other.

The cutis therefore, a vascular and highly sensible structure, is penetrated by the hair,

which does not, as far as the most minute injections, with the help of glasses can shew; receive any contribution of vessels for the purposes of nourishment from it. And if there is any analogy between the structure of the human hair, and that of the larger species of animals; the oleaginous secretion covering it, and giving to it its smooth and glossy appearance; is also derived from the adipose structure alluded to beneath the cutis. This fluid being conveyed along the centre of the hair by tubes which originate in the bulb.

From a little above the bulb, as it passes up through the scalp, each hair is seen to receive an opaque membranous covering, forming a kind of sheath; which sheath can be easily traced to the surface of the scalp and a little above it; appearing at this part as if formed by a process sent off from the cuticle. In minutely injected preparations, vessels may be seen passing on these sheaths, and originating in the adipose capsules; having

no other obvious use than the support of the sheath and the hair it contains.

The fact that the scalp is pierced by the hair and has little or no share in its production or nourishment, I am particularly desirous of impressing upon the attention of my readers. Reasoning from analogy we should be justified by this consideration only, in concluding that the latter *may* possess when the former is in a state of disease all the properties of extraneous substances. As regards the common Ringworm of this part, it will be uniformly found evincing these characteristics in the mildest as well as most severe forms of the disease.

It may be needless to remark, that with the exceptions mentioned in the foregoing description, the component parts of the scalp are the same as those of the common covering of the body elsewhere. That closely in contact with, extended over, and attached to the adipose structure described, from which the nourishment of the hair is derived

the same sensible and highly vascular cutis exists—That the rete nuccosum covers this, and that the same insensible structure the cuticle; is extended over all. And it will be obvious enough, that we are not pursuing an idle or unpromising path of enquiry in searching for the causes of the peculiar obstinacy of disease, in those circumstances which we know to be peculiar to the part in which it occurs.*

From the foregoing statement, no doubt will be entertained of the correctness of the opinion of an author to whom I have already alluded, “ that the vessels which form the cuticle and those which supply the secreting capsule of the bulbs of the hair are not the same.”

The structure of the hair must in its formation require an arrangement of vessels

* I take it for granted that ringworm of the scalp may be considered as the most obstinate of cutaneous diseases (not having a constitutional origin or connection) with which we are at present acquainted.

materially different from that producing a substance so entirely dissimilar to it as the cuticle. To this fact I shall have frequent occasion to refer. The support and nourishment of the hair is dependent on a set of vessels expressly designed for the purpose: which vessels are distributed on the adipose capsules in which the bulbs of the hair are placed.

The cutis itself must give origin to those vessels producing the cuticle, whether in conjunction with the rete mucosum or independent of it, it is not necessary to my present purpose to enquire.*

Two importantly different productions therefore, of solid structure, independent of

* Amidst all the doubts of the existence of this latter membrane and the conjectures which have been formed on its uses; I may be allowed to suggest the probability that it may be the produce of the same vessels as the cuticle: that it may in fact be the inner portion of this lamina, in that state of imperfect formation previous to adhesion and consolidation with that already completely formed.

the fluid secretions of the part, are constantly going on within an extremely minute space ; and the influence of disorder in one must consequently be expected frequently to affect the other. This remark will be often illustrated in the following pages.

CHAP. II.

On Porrigo Scutulata, or, Ringworm of the Scalp.

The symptom by which this disease is usually first discovered is the falling off of the hair of the part. The attention being attracted by this occurrence, the scalp appears on examination to have assumed a somewhat scurfy and slightly reddened appearance. The hair remaining on the diseased part is thin and irregularly scattered over it: the greater portion appearing to have been removed by the roots, while some have been broken off near to the scalp, the roots of which still retain their situation. Those which remain apparently growing on the part, will be found to drop off on friction

or to have on being pulled scarce any hold on the scalp.

In the majority of cases at their first commencement these will be the only appearances noticed. The existence of the minute straw coloured pustules denominated aches does not appear necessary to constitute the disease, as they are not seen for a short time later and not till after some degree of itching and irritation of the part has been felt.

I have selected this species of the disease for my first and chief consideration, on account of its greater degree of frequency of occurrence and obstinacy of character; and consequently greater importance.

In omitting altogether the *Porrigo larvalis* in the present essay, I adopt the opinion of Dr. Bateman as to its material difference of character from the other species. From the period when I first directed my particular attention to these subjects, I was well satisfied of the correctness of his remarks on this point. Subsequent experience has more

fully confirmed its truth, and on this account I have not thought proper to make it any part of the present consideration.

The pathological remarks I have to offer on the origin and progress of the *P. Scutulata* will be found applicable to the *Furfurosa* and *Lupinosa* : and the points in which the characters of the two latter differ from the former, may with propriety form the subjects of a future page.

Though the achores mentioned by different authors who have preceded me as being the most important feature of this disease, are not seen at its first commencement, they are usually soon making their appearance after the hair begins to fall off. The itching and irritation commencing at the same time, the child who is the subject of it soon ruptures a few of them, and spreading by the frequently repeated application of the nails to the spot, their contents cover the adjacent parts of the scalp, extends the disease with great rapidity upon it ; the same destruction

of the hair and subsequent pustulation marking its progress.

When pustules are noticed they are uniformly found with hairs growing through them; and if the disease has existed for a considerable length of time and destroyed the greater part of the hair of the part, such pustules are found proportionately reduced in number; but still surrounding the few straggling hairs which remain: each single minute pustule appearing to be dependant on the hair in its centre.

If the hair as sometimes happens, be completely eradicated from the spot where the disease first appears, the skin assumes an apparently healthy character: the disease as regards this particular spot may be said to have exhausted itself.

In traversing the other parts of the scalp, however, (the power of infection being kept up by the secretion of the pustules of such parts) till the new hair again appears in the original situation of the disease; a recurrence

of the pustules takes place here, and the same destruction of the new hair is observed, as of the old.

The foregoing may be considered a correct description of the disease, and with the exception of the statement of the existence of pustules at its commencement, is in substance what has been given us by Dr. Willan and others. The specific irritation constituting its essence is correctly described by that author as diffused in a circular areola on the spot to which the infectious matter is first applied. In the rapid extension of the mischief after pustulation has commenced the same figure is preserved or pretty nearly so : the contents of the pustules on the margin being constantly distributed over the adjacent healthy scalp by the rupture of the cuticle covering them in the act of scratching the spot ; or by the natural discharge of it when the process of pustulation is complete.

That the disease when once formed on the spot spreads only beyond a very small extent

by the application of the infectious matter, (and not from the mere communication of the specific action of the vessels of the part to those adjoining); is an important fact in its pathology and treatment to which I shall have frequently to refer. If a doubt can be entertained on this point in the mind of any candid enquirer; a minute attention to a single case will be sufficient to remove it: and if its correctness be admitted, it will be obvious that the present routine of management as regards applications to the part, is the most inefficient and futile that can well be conceived.

There is no necessity to descend to minute particulars to establish conviction on this point; for it is clear that applications to the part whether sedative or stimulant, astringent or otherwise; if they do not possess the power of taking from the matter secreted (by decomposition or other means) the power of infection, must be utterly inefficacious if not (as many kinds of them

certainly are) highly prejudicial. The common attentions of a cleanly nurse are infinitely more effectual, and that for obvious reasons in this hitherto terrible complaint than any medicinal application whatever where cleanliness is neglected ; and those which have been found the most effectual, or have contributed in any degree to expedite the cure, certainly act pretty much in the same way as the diligent use of the domestic materials such descriptions of persons are accustomed to employ in washing the children's heads—that is, they remove the infectious matter or render it inert.

Dr. Willan has asserted, that all the different species of *Porrigo* may be produced from the same contagion. With all the respect due to such an opinion, I must take leave to state, that the observations I have had an opportunity of making do not by any means support it. Not only have the results of the common accidental occurrence of the different species of the disease afforded proofs

of the contrary, but experiments instituted for the purpose have invariably supported the opposite conclusion.

I have already alluded to the opinion of a physician of the same institution, in the practice of which Dr. Willan is supposed to have made the greater part of the remarks which led to his publication: as to the non-contagious character of the *P. Larvalis*,* the first species of *Porrigo* of that author. I am not therefore unsupported in my dissent from the foregoing opinion as to this particular species. It is not in any case contagious, and if not capable of producing a disease of its own kind in a part previously healthy; it cannot be supposed to have the power of producing one materially different from it.

So far as experimental enquiry has gone, it appears probable that the *Scutulata*, *Furfurosa* and *Lupinosa*, only are the results of one

* The *Crusta Lactea* and Tooth rash of other English Authors and the *Teigne muqueuse* of Alibert.

specific contagion ; and the points in which these differ from each other are of very small importance. The *P. Decalvans* is of such rare occurrence as to make it difficult to form a decided opinion of the manner of its production. Dr. Willan has seen it in one or two children where common Ringworm has spread through a large school or academy : it may therefore be considered as nearly connected with this latter species ; though the absence of any redness of the scalp seems to render its chief feature ; the destruction of the hair ; very difficult of explanation.

In speaking of the *Favosa*, we are treading on ground somewhat more certain. Its very frequent occurrence compared to the last species affording greater opportunities for practical remark as well as experiment. In no case does this form of the disease appear by infection to produce either of the other species. Whether the matter secreted be inserted under the cuticle or simply applied by friction, the same favous pustule is pro-

duced as the original ; which goes through its course and is not found to shew any of the obstinacy of the *Scutulata*, the dry inactivity of the *Lupinosa*, or the morbid secretion of cuticle which distinguishes the furaceous disease.

The Ringworm of the scalp has been in a preceding page stated to have an intimate connexion with a cutaneous disease, commonly similarly named, and occurring on the skin in other parts of the body. It is necessary to observe, that I am not alluding to the herpetic disease sometimes so called, or to the *Impetigo Figurata*, each of which obtain the appellation from the form in which they spread as well as the Ringworm of the scalp. When that disease occurs on which I have made this observation, it does not often show the pustules of the one and never the vesicles or tetter of the other ; but is usually marked by a lightish redness of the spot and slight exfoliations of the cuticle. The centre of the patch appears to have lost the greater

part of this covering ; while a morbid accumulation of it marks the extension and line of margin of the disease.* Sometimes minute pustules occur and some itching and tingling of the part : other spots of the same kind are then seen in the neighbourhood ; but if left undisturbed, it appears to exhaust itself and die away. The use of the ung. hydr. nitr. diluted is beneficial in this case : as it has appeared to me by readily mixing with the irritating secretions when rubbing it on the part and depriving them of their contagious properties.

Whether the two diseases can be satisfactorily identified or not, must be left to future experience to determine. If on being tried

* A case of this affection lately came under my notice ; where the disease first appearing on the arm of a lady, the mother of several children, seemed evidently to have been carried from thence to the heads of two little girls who had the common ringworm of the scalp shortly after, with its usual features, destruction of the hair, and subsequent formation of pustules. Both children recovered by the pursuit of the plan of treatment, detailed in the following pages.

by this best of all tests, the correctness of the opinion I have entertained should be decided, it is not improbable that *Porrigio* and *Impetigo* may be found more nearly connected than has been hitherto supposed ; for that a considerable similarity does exist between the Ringworm of the skin and one of the species or states of *Impetigo* I have been obliged to believe ; though the descriptions and plates of the latter disease with which we have been favoured, do not exactly correspond with the appearance of the former, as I have myself seen it.

Among the various diseases to which the skin is liable there is none which excites more interest than Ringworm appearing on the scalp. Notwithstanding the experience we have had of its incapability where a strict attention to cleanliness is observed of producing any permanently serious mischief to the part, the same alarm still occurs on its appearance, whether in public seminaries, or private families. Where nothing certain is

known as to the probable time of continuance and most correct methods of treatment of any disease, some degree of apprehension must of course occur; and such apprehension receives little diminution in the mother's mind in this case, when she finds the professional advice relied on perhaps with much confidence in other cases confined merely to directions how to protect the rest of her family from its infection.

The statements which have been handed down to us of its effects in altering the colour and strength of the hair afterwards growing on the part when the disease has subsided, are not at all calculated to diminish this alarm; though as completely contradicted by daily experience at the present period as any hasty deduction founded on slight observation can possibly be. Whatever effect may be produced on the hair growing on the part at the time of the occurrence of the disease, the structure secreting the hair is not affected by it; and when the

former has been subdued or more properly speaking allowed to exhaust itself; the hair will grow strong and healthy as ever. It is of course not meant to be asserted here, that the new hair will at once spring up of the same shade and strength as the original; but that after being once or twice shaved it exhibits no difference whatever. When extensive ulceration of the scalp has been produced by mismanagement and neglect, the case is materially altered. Then the production of new hair, will of course depend on the degree of mischief which the part secreting it has sustained.*

These however are cases not met with in decent society; they are indeed only seen among collections of paupers and the patients of public charitable institutions.

* In the case from which the drawing of the first plate was taken, hair is now growing thick and strong on the part: a few spots where deep ulcerations existed only excepted. The patient was 19 years of age, and has had the disease during the last nine years, without a change for the better previous to my seeing her.

When the secretion from the pustules is allowed to accumulate, scabs are formed of it upon the surface: which being confined by their adhesion to the remaining hairs; become a means of further accumulation of this irritating fluid. The inflammatory action of the part, materially increased in this way; the quantity of fluid secreted, and the means of extension of the disease, receive likewise a proportionate increase; and it is this state of the disease which appears to be understood by the term Scalled head. The pain and irritation experienced under these circumstances; with the extreme tenderness of the part, render the patients very averse to any of the usual applications. In a still more aggravated form of the disease, the accumulation of scabs, the offensiveness of the odour of the part, and the myriads of pediculi creeping over it, render it so disgusting as to discourage, very commonly, any earnest attempts at relief; and the patient (generally as I have observed moving in the very lower

ranks in life) is abandoned to the ravages of the disease.

Any remarks on the necessity of confining the term Scalled head to the foregoing description of the disease, or an aggravated state of common Ringworm, may perhaps be considered superfluous. Yet it is not uncommon to see the Favous species so designated, though a materially different disease; and never attended with the obstinacy or mischief to the hair, distinguishing the former.

In the description of Dr. Willan, of the progress of the affection in a less formidable and advanced stage, the complete extirpation of the hair is stated to be followed by the return of the natural colour and appearance of the scalp.* A remark which appears to have been made without exciting the suspicion that the hair while it remained had any

* As soon as the extirpation of the hair is completed the scalp though partially much denuded re-assumes its natural colour and appearance.

share in keeping up the disease. While however we see this state of things constantly occurring where complete extirpation of the hair has been effected, and daily experience the recurrence of fresh patches of pustules while any remain in other cases, or perhaps on the same head: we are fully justified in such a suspicion; and it is further warranted by other circumstances which I shall have to mention hereafter.

It has been already remarked that the pustules are uniformly having a hair growing in their centre; and this observation appears to have influenced a writer on the diseases of children many years since, in the assertion that the disease commences in the roots of the hair.* Mr. Luxmoore also, in a pamphlet published in 1810, entertains the same opinion. I think myself justified however in pronouncing these to be *mere* opinions,

* Underwood on the Disorders of Childhood adapted to domestic use, vol. II. page 3.

and however probable their correctness may appear, they are such as will never be supported by the result of more minute examination of the origin and progress of the disease.

The latter author observes, “ that the disease consists of a chronic inflammation
 “ productive of matter peculiar in its nature
 “ and capable of propagating the complaint
 “ if applied to the scalp of a healthy subject, as much as Syphilis or any other
 “ specific disease. If applied to other parts
 “ of the body it produces a similar disease,
 “ allowing for the difference of structure of
 “ those parts; and which is generally known
 “ under the name of Ringworm.”

I have stated in a preceding page, my opinion that Impetigo and Porrigo may be found to have a nearer connexion than has been hitherto supposed; and I might possibly adduce the foregoing remark of Mr. Luxmore in support of such opinion. As however the Herpes circinatus and Impetigo figurata; as well as that cutaneous affection

of which I have given a short description, are all commonly receiving the appellation of Ringworm, it is impossible to form a satisfactory conjecture to which disease he alludes as being connected with the disease of the scalp.

I may take the liberty to observe also, that the plan of treatment which this author appears to have adopted with much success, will in the majority of cases, whether in their incipient states or more confirmed forms, be found entirely inadequate to the production of any good effect on the disease. Even in those cases which occur where the most decided marks of Scrofulous diathesis prevail, it is much to be doubted whether constitutional remedies have the slightest influence in its cure; and at the present day little doubt can be entertained of the fact of its being merely a local affection, in the original production of which the constitution has little or nothing to do. As to its mode of extension by contagion, still less hesitation must be felt in acknowledging its complete

independence of constitutional causes; as it runs in a very short space of time through whole schools of children; alike affecting those of the most robust and decidedly healthy habits, with those of an opposite condition.

It is with a considerable degree of diffidence that I have made the preceding remark on Dr. Underwood's opinion, as to the origin of the disease in the roots of the hair. The opinions of such a man founded, as they are even when erroneous, upon actual attentive observation of disease, must command respect and attention: and the practice he recommends in this, notwithstanding its indiscriminate condemnation by later authors, I have no hesitation in pronouncing to be founded on the best and soundest of principles. Deficiency of minute research in disease will often beget erroneous principles of treatment. The incorrectness of such principles are soon disclosed in extensive fields of practice, when they and the treatment

founded on them, give place to mere trials *without principle* of multitudes of different remedies or applications. Such a field during an active and well spent life was always open to the respected character to whom I allude ; and whether ignorant or not, of the direct principle upon which the Pitch cap and other depilatories acted in this disease, it is to be presumed that he had often been a witness of their good effects in its management.

I am not, by these remarks, desirous of advocating the use of such barbarous methods of practice as the Pitch cap appears to be a part of; though they may be founded on a good principle ; because such principle is abused at the same time as it is partially carried into effect. The removal of the hair by the roots, where the pustules of the disease has loosened them, is a measure absolutely necessary to the speedily checking it; but it is obvious enough that the forcibly drawing off the Pitch cap, must equally

draw up the roots of the sound hair to which it is attached on the adjacent parts.

In recommending a minute and careful attention to the removal of every hair around which a pustule may be formed ; it is necessary to observe, that any violence to, or interference with other hairs not so situated, is inevitably doing mischief ; as it is increasing the action of the vessels of the part and rendering the extent of pustulation much greater than it would otherwise be. Severe pain is also produced in this way, and considerable opposition on the part of the child to allow the head to be touched in future. The separation of the hair round which any pustule is discovered on the other hand, is productive of little or no pain ; and is readily accomplished in a satisfactory manner by a pair of small forceps.

A great difference of opinion seems to be entertained by different authors as to the occasional origin of *Porrigo Scutulata* from long protracted *Pityriasis* and other

furfuraceous and scaly diseases of the scalp. The very positive manner in which the possibility even of such origin has been denied by some, is calculated to establish a considerable degree of confidence in their opinion. On the other hand however, it must be acknowledged, that we are often seeing them co-existent on the same head, and find on enquiry that the scurf had existed some time previous to the falling off of the hair. Not unfrequently also, are we at loss in such cases to trace the infection. On the whole I think this question a very difficult one to decide, but greater confidence will be probably placed in the opinion of a popular Physician in extensive practice belonging to a public institution in town ; than in that of a country practitioner whose means of observation must be necessarily more limited.

If this disease originated in the bulbs of the hair as has been maintained ; it is apprehended that we should have pustulation in all cases at their earliest periods of appear-

ance : since it is difficult to conceive that the excitement of the disease from the application of matter to the skin should at once evince itself in the roots of the hair (apparently cutting off their nourishment and causing them to drop off) without a decided suppurative action having here been produced. That pustules do *not* appear when the hair *begins* to fall off, I may adduce as a proof therefore that it is not here that the disease originates. This peculiar feature, the falling off of the hair, is much more easily and satisfactorily explained by referring it to the influence of the same principle on which its separation after Scarlatina and other eruptive diseases appears to depend ; and which in submitting my ideas of the true pathology of the disease, I shall endeavour more particularly to explain.

In the description with which the present chapter commenced, I have endeavoured to convey a correct idea of the characters of what is exclusively called Ringworm of the

scalp by some, and by others pronounced to be Scalled head. The latter term appears to be sometimes indiscriminately bestowed on the *Porrigo Favosa*, and different stages of *P. Scutulata*.

For the purposes of distinction and successful treatment, it is highly necessary that some settled and distinct meaning should be affixed to these terms. In pronouncing after the example of some authors, the favous species to be Scalled head; we should convey an impression to the generality of practitioners, very materially different from what is intended: for as has been already observed, the favous disease has none of the obstinate features of the *Scutulata*, and the application of the proper principles of treatment of this latter, to the management of the former, would be found utterly impracticable.

In suggesting the restriction of the term Scalled head, to the advanced stages of *P. Scutulata*, I am persuaded that a better understanding of the disease and its treatment will

be thus obtained: for while so much doubt and uncertainty is experienced as to this point—where two importantly different diseases are confounded together, the proper treatment of which differ as widely as their characteristic features; successful practice can never be expected.

The very material points in which the P. Favosa differ from the subject of our present consideration may be seen by referring to the chapter on that subject. The more copious exudation of fluid, and consequent formation of scabs; may appear to give it a superior title to the epithet Scalled head when occurring on this part. Though equally contagious however, from the application of the matter secreted; its very frequent spontaneous termination and other important characteristics to which I have alluded; make it quite a different disease from what is *commonly* understood by this term: the idea generally attached to it being that of a tedious and obstinate disease; which destroys the hair; is seldom removed by any

topical application, and rarely, if ever, known to terminate of its own accord : a disease in fact precisely answering to the character of the advanced states of P. Scutulata.

Notwithstanding the absence of that copious exudation of fluid even in the most advanced stages of the Scutulata, which marks the favous species, and the existence of many other very important differences in the two diseases ; the same methods of treatment are still inculcated by the majority of those who have preceded me, as applicable to both. If medical men taking on themselves the characters of authors, will continue to propagate ideas unsupported by actual attentive observation of the diseases on which they write, as guides for their professional brethren ; (and it is to be lamented that this has been much too often the case) confusion and mischief must necessarily arise : and in this particular case, a practical man would have no hesitation in denouncing an author of this description, as a most mischievous member of society.

The use of the common application in each species of the disease, hitherto however; can only be said to have done harm in proportion to the confidence reposed in them; but nevertheless, in discussing diseases, the true pathology of which, appears to be so little known; we should in justice to the science of which we are members, attach no more importance to any particular remedy, than we feel ourselves by the result of real practical experiment, conscientiously justified in giving it. Were this principle strictly adhered to we should hear less of most important improvements; of decided specifics, than we are now accustomed to: and it is presumed that the same methods of treatment of the *P. Scutulata* and *Favosa* would find but few advocates.

In our preceding pages, an attempt has been made to describe the milder and less advanced stages of the *P. Scutulata*, as well as allusions to some of its effects, when suffered to pursue its ravages unmolested. The different gradations between the former of

these, and that represented in plate I. must be very numerous : the one description is applicable to the disease where attention to cleanliness effectually prevents any lodgment of the diseased secretion on the parts ; and where it receives no accession of strength from collateral circumstances : the other, to that state which never occurs *without* the full influence of all such circumstances having been exerted for a very considerable length of time. Irregular rugged layers of scabs, swarming with vermin, forming at once a complete barrier to any application calculated to check the mischief going on beneath ; and a shield to protect and retain the irritating secretions on the spot, and furnish more copious means of its extension, invariably characterise this state of matters, as it has fallen under my notice : and such were the appearances in that case from which the plate referred to was taken.*

* The appearance and apparent structure of the scabs of the parts, seem to have been the chief points

In cases much less advanced than is represented in this plate, however, an effectual check seems occasionally to be produced, to the extension of the disease on sound parts, by the excessive excitement of that originally affected. Where the diseased surface is very considerable in extent; of long standing; and in a very irritable state, the application of the matter to a sound part of the same scalp has often failed to produce the disease, while the same experiment on a healthy scalp with the same matter *has* been followed by this effect.

In a foregoing page I have taken the liberty to question the correctness of the

intended to be represented in the plates of those who have preceded me. I have however considered it more essential to shew as near as may be, the *disease itself* rather than the form its secretions assume when left to dry on the part. A very active degree of inflammation of every portion of the diseased surface, is here endeavoured to be represented, as well as the same distinguishing feature of it existing in its earliest period, namely; the formation of pustules round the hair.

opinion of the origin of the P. Scutulata in the bulbs of the hair; and have adduced the remark that their separation frequently occurs without having a pustule surrounding them. It also frequently happens where no pustules are to be discovered, that they separate without having their bulbs attached to them: their extremities appearing to be broken off, or as if the process of secretion of them had been suddenly stopped. On the other hand the hair may be frequently drawn out, where the pustule is fully formed; with the bulb having its regular healthy dark coloured appearance; which it is apprehended would not be the case, if the opinion alluded to were correct.

The separation of the hair, as an abstract symptom; is not of sufficient importance to justify such opinion; particularly when the above-mentioned facts as to the falling off of the hair without any appearance of bulb, where pustules are *not* formed, and their frequent separations *with their bulbs in an*

apparently healthy state, where they are : and where such hairs are drawn out from their centre. Whatever difference of opinion I may have entertained on this particular point as to the seat of the disease at its origin, I have already stated my idea that the hair is still exercising a great influence in keeping it up, when once established : and though I am not prepared to deny the possibility of the occurrence of pustules where no hairs exist ; experience warrants the assertion that they are in most cases produced by the irritation, which the presence of the hair, situated in the already diseased skin, is calculated to excite. Several, and indeed most authors who have preceded me in the description of the disease ; have noticed the fact of its cessation on spots where the hair has been eradicated. So far, the above assertion is somewhat supported ; and I may further observe that the application of the contents of the pustules to the skin of other parts ; though sometimes producing an affec-

tion resembling that described in a preceding page :* yet have I never seen any thing like a pustule following it except when such part was thickly covered with the finer kind of hair, when some little moisture has been now and then observed.

The successful treatment of Ringworm will materially depend on considering the destruction of the hair of the spot on which it makes its first appearance, as a necessary consequence of the disease. Any anxiety to preserve this, if influencing us in the measures we adopt, would most probably be prejudicial ; and tend to retard the cure rather than expedite it. I believe this to be a remark generally applicable and if there is any truth in the idea that the hair exerts a prejudicial influence in increasing the excitement of the disease ; in the formation of pustules, and consequent increase of the means of its extension ; the necessity of attending to it will be sufficiently obvious.

(* Page 29.)

Much light may be thrown on the pathology of this affection, by reference to the known effects of the severe forms of Scarlatina as well as of other diseases attended by determination to the skin. In this disease, where excessive excitement of the part prevails through its course; its termination is attended by extensive exfoliations of the cuticle; and occasionally by the separation of the hair of the scalp: which two circumstances appear to depend on the same cause; the excessive action of the vessels of the cutis. This action of which those vessels partake which secrete the cuticle, produces a morbid increase of this structure; while the privation of blood which (during the continuation of the inflammatory state of the cutis) the structure secreting the hair sustains, cutting off its nourishment, it is observed to drop off, apparently by the roots, though if examined never having its rounded healthy bulbs. The same privation of nourishment which the structure secreting the hair suffers in the extended inflammation of Scarlatina; is experienced in an aggravated

ed degree in the smaller space which Ringworm commonly makes its appearance on ; and hence it is, that the hair separates in this disease without the formation of pustules. The determination of blood to the cutis depriving the structure secreting the hair, of the proper quantity of this fluid necessary to the healthy performance of its functions.

In Ringworm it also not unfrequently occurs ; that those vessels of the cutis which are destined to secrete the cuticle ; perform such office with a similarly excited action ; and hence that scurfy state of the part, generally found to exist, when the disease is first discovered.

In simple Pityriasis or Dandriff, the character of which affection is marked by accumulation of scurf ; that portion of the vessels of the cutis only, producing the cuticle seems to be under the influence of disordered action : no active inflammation of the solid structure of the cutis usually attending it.

The scurfy state of the skin where Ring-

worm exists ; contributes very frequently to prevent the discovery of the disease : and in the majority of cases this morbid accumulation of cuticle ; unless carefully removed ; will likewise conceal that actively inflamed state of the cutis constituting its essence. If the precaution of completely removing it be taken however ; no ordinary degree of redness and heat of the part, is manifested : which if known to have existed for any length of time, may be considered quite a sufficient explanation of the falling off of the hair, upon the principle above stated.

The separation of the hair being thus explained, the cause of the frequent occurrence of pustulation, will be better understood. The disease may be defined to be inflammation of a specific character, affecting the solid structure of the Cutis. It will be recollected that pustules only occur, where hairs exist ; and that each pustule has usually one in its centre : and bearing in mind what has been already stated, as to the probable influence

of the hair on the scalp, where the eutis is actively inflamed ; we may be warranted in the conclusion that *the specific irritation of the disease obtains an accession of strength from the local influence of the hair, where it penetrates the scalp ; and that the formation of a pustule is the consequence of such accession.*

While however on any single diseased spot some hairs apparently growing from a healthy root ; (and on being torn up evincing all the appearances of a healthy bulb) are surrounded by a pustule, many, around which no pustule appears, are either dropping off, or separate without the employment of the slightest degree of force.

We must not expect a return to health of the seat of the pustule in the first of these cases without the separation of the hair in its centre, for after a careful attention with good glasses to this point, I am persuaded that if it remains any length of time it produces on a minute scale all the effects of an extraneous substance ; and that it separates

at last. In the latter it will be obvious that the suffering the ends of the hair to remain sticking in the skin, can only be productive of mischief in the same way, by increasing the irritation of the disease.

In those cases of the disease where no pustules occur, the power of extension is necessarily more limited than it would otherwise be. The single spot of disease first appearing continues to enlarge in a circular form, and is not followed by the appearance of others on distant parts of the scalp so frequently as in the former case. There is always some degree of secretion of fluid even in the latter, which has been called the dry species, and on the proportion of this the degree of rapidity of its extension appears to depend.

CHAP. III.

Treatment of Ringworm.

In entering on this part of my subject I derive but little assistance from preceding authors. The failure of most of those applications which have been recommended, has been witnessed perhaps, by almost every member of the profession who has seen any thing of the disease. It would be useless to detail the infinite supposed remedies, of which from time to time, we are constrained to listen to the effects; for the majority of the best informed practitioners of the present day will be disposed to attach equal importance to them all: experience having taught them that none have uniformly succeeded in producing a cure.

Whatever may be the opinion among the profession generally, as to the necessity of a more *minutely local attention* to cutaneous diseases than has been hitherto adopted; it has frequently occurred to me that by the too frequent reference of many of them to constitutional causes; and the adoption of corresponding treatment, the most efficient and best plans of management have been quite forsaken: and even in those diseases, which in their very nature bespeak an origin entirely local; a considerable degree of carelessness of their characteristic features is manifested in the usual regulations laid down for applications to the part.

In no instance is the correctness of the preceding remark more fully borne out, than in that of the disease now under consideration. While it is the conviction of every one, that in the majority of cases which come under our notice, immense numbers of minute pustules are continually forming and discharging their contents on the part; and that

a very minute portion of such contents is capable of producing the disease by its application to sound parts in the neighbourhood; yet the greater portion of the applications made use of, consisting of ointments, are more calculated, by being rubbed on the scalp, to diffuse the matter more extensively, and thus extend the disease; than to produce any certain and decided effect towards curing it.

Viewing the matter in the above light, it has hitherto been my practice as a preliminary step to any medicinal application; to effect the discharge of the contents of as many of the pustules as possible, by pinching up the skin between the finger and thumb; and carefully washing away what is thus forced out.

Previous to this however, an important step must be taken already alluded to: *the removal of any hair remaining on the part which may appear to come away easily, and without pain to the patient.* This precaution

is necessary whether pustules may have formed in great numbers or not, and not only should such gentle force be used as is consistent with ease to the patient in trying the hair of the diseased part; but that which is apparently healthy, surrounding the margin, should be submitted to the same test : for it not unfrequently happens, that the hair will easily separate a short distance from this, without pain, and lead to the discovery of the mischief to a greater extent than was first suspected. It must be taken for granted, that those hairs which will separate with a slight degree of force, have lost the means of support and nourishment, either as the consequence of the formation of a pustule around them ; or from the influence of the irritation of the disease, on its secreting structure which has been explained : and that their remaining sticking in the scalp can only be productive of further irritation on the part.

This being their influence under such cir-

cumstances, no objection can arise to their removal by lenient means. A more discriminate application of this principle of treatment is highly necessary however, than the Pitch cap seems to afford ; and the benefit of the practice will amply reward the little additional trouble which may be necessary to the judicious use of a pair of small forceps in its accomplishment. It is presumed that we have had experience enough of the futility of any medicinal application, where no attention to this point has been observed. Shaving the part may be considered, though necessary in all cases after the loose hair has been removed, no effectual substitute for it ; and when adopted without this previous precaution, it has an important disadvantage by leaving the extremities of the hair sticking in the skin and exciting a considerable degree of subsequent irritation ; and possibly an increased number of pustules.

The removal of the hair having been effected, the extent of the disease fully ex-

posed, the removal of the contents of the pustules in the manner described, is the next step to be taken. This having been effected; and the part washed with warm water and soap; some astringent application, possessing *the power of taking from the secretion its infectious properties; and at the same time sufficiently powerful to constrict the vessels from which it flows and lessen its quantity* may be made use of.

A solution of the Sulphate of Copper has been employed in some cases for this purpose. I believe the object to be more completely accomplished however, by rubbing this preparation in a finely powdered state on the part and then washing it off.

The slight inflammation which drawing out the hair, and shaving the part occasions, usually produces a few more pustules than would probably otherwise occur, if not kept under for the first day or two by some sedative application. A careful examination should be instituted every morning; and if

any pustules appear they should be at once removed and the Sulphate of Copper applied as at first to the part. After two or three repetitions of this application, no fresh appearance of pustules take place and the circle of the disease is marked by small thin scabs of a darkish colour and the same characteristics in other respects as the common exudation from abraded surfaces of the cutis. These scabs separate in a few days, bringing with them a few of the remaining hairs which have separated, and leaving a shining red and irregular surface, which gradually loses its inflammatory character, having now and then a little scurf forming on it till the new hair begins to appear.

While any redness of the cutis continues, it is advisable to watch the appearance of the new hair; as it sometimes happens, where this is produced very quickly after the disease has been subdued, that the excitement it occasions is followed by a slight fluid secretion, concreting into minute scabs and contribut-

ing to retard the production of a strong and healthy cuticle.

The effects of the disease on the scalp where a great number of pustules have been formed, is such as to prevent a rational hope of strong and healthy hair covering the part in a shorter period than six weeks or two months : at the end of three months however, it will usually have attained its original strength.

After the adoption of the practice described, we shall not as heretofore be dependant on the growth of fresh hair, and its soundness in the part, for a test of the termination of the disease ; for if this be fully carried into effect, the occurrence of fresh pustules will be prevented and the specific action of the part, if any should remain after the separation of the scabs ; will subside long before the new hair makes its appearance.

The positive and decided manner in which any thing like depilation has been condemned by Dr. Willan and others, appears to call

very loudly for my attention in this part of the subject. A principle which experience fully justifies me in pronouncing a most important one, in the successful treatment of the disease ; has been formally denounced by this author, and others, who have followed him ; as doing more mischief to the scalp in one day, “ than the disease left to itself would effect in three years.” This sweeping assertion is it is true somewhat qualified by the conjunction, “ if the head were kept clean,” and knowing, as we do, that under such circumstances, the disease can do *no* permanent harm ; and bearing in mind also, what has been said in a preceding page of the influence of cleanliness, in checking its extension : if we believed that any mischief at all, arose from forcibly separating the hair, we might yield a qualified assent to this opinion.

It is not however with cases in which cleanliness to its completest extent, has been observed, that we have often to deal ; and whatever may be the influence of the forcible

removal of the hair by its roots from the parts affected, on the structure secreting such hair, as regards its reproduction ; little doubt will be entertained, that the disease itself, where the slightest attention to cleanliness is observed ; has no properties likely to produce a *permanently prejudicial* effect of this kind.

It is still less probable, that the removal of the hair, however barbarous the means by which it is effected ; should be followed by baldness : or, after a few weeks has elapsed, that the new hair should not obtain the strength of the original : since, as we have already remarked, the *organic structure producing the hair*, is neither drawn out with it, or sustains any mischief by the violence employed. As well might we expect that long protracted sores, on the extremities of the toes or fingers, producing the death of the nail,* and its final separation ; should

* The common occurrence of the separation of the nails of the toes when ulceration of the integuments surrounding and in contact with them take place, may be

prevent a reproduction of such nail; but we well know that a most extensive suppuration, if not an actual sloughing of the gland, is necessary to prevent portions of new nail appearing after the sore has healed.

To put a stop to the secretion of the nail, or the secretion of the hair; it is necessary that the organ of such secretion should be destroyed: and when in Ringworm of the scalp, except as I have already stated, where ulceration has extended to the pericranium can the adipose structure described be said to have been destroyed? It cannot happen from drawing out the hair—it cannot happen as the consequence of the disease merely—it cannot occur without the production of ex-

referred to as an analogous instance of the influence of parts dissimilar to those diseased in keeping up irritation. The nail in these cases even before the destruction of its life, becomes so far of an extraneous character as to excite a suppurative action around it, eventually extending to its root, and being followed by its complete removal. A series of changes are gone through precisely similar to those which on a minuter scale appear to extirpate the hair in the pustulation of *P. Scutulata*.

tensive ulceration : and such ulceration is liable to *follow* the disease in bad habits of body, and where no attention has been paid to it : but the separation of the hair simply, can never destroy its secreting structure. In what manner therefore can this step be productive of so much mischief to the scalp as has been represented ?

With due deference to the author in question, I should answer this interrogatory by asserting that the disease itself, *may* under mis-management and neglect, become a means (by subsequent ulceration) of inflicting a permanent, and irreparable injury to the scalp : but that the forcibly drawing out of *every hair*, sound, or unsound, is not adequate to the production of any effect on the part beyond a temporary privation of this necessary covering.

It may be observed that I am at once assuming, that the nature of the mischief which the scalp is said to sustain from depilatories ; must be such as relates to the future

growth of the hair. Such it is presumed must have been the meaning of Dr. Willan in the sentence quoted: since it is difficult to conceive, that extraction of the hair, or the use of any application tending to hasten its separation, could produce what may be considered a permanently prejudicial effect in any other way.

It is not the principle of removal by extraction, of the hair on the diseased part; that admits of question as to its correctness and propriety, but the means by which such principle, has been hitherto usually carried into effect. The imagination shrinks with horror at the idea of forcibly tearing off the pitch cap; alike dragging with it the sound and unsound hair, and the scabby secretions of the tender and irritated surface from its attachments; and inflicting as much pain as the most resolute of dispositions can scarcely support.

From all these inconveniences, the use of a pair of forceps is perfectly free. They are

applied only where the disease exists ; and to hair already loosened : the slightest degree of force is sufficient to remove such hair, where force is at all necessary ; and no pain will be found to attend it.

There is a considerable period usually elapses after the check to the regular secretion of the hair commences, and its entire separation : during such time the hair should be considered as exciting that degree of irritation, to which I have attached so much importance in keeping up the disease. The cessation of secretion of the hair, and its dropping off ; cannot be the work of the same moment : it must remain sticking in the part sometime : let it not be said therefore that no necessity exists under these circumstances for its removal ; or that the irritation it excites is too slight to require notice : for there is no reason to doubt that the hair in causing the pustules of the *P. Scutulata* produces the same series of effects, on a minuter scale, which take place where irritation and a

suppurative state of parts arise from the presence of the nail on the fingers or toes: whether separated from the parts whence it originates or attached at its root to these parts, such influence will still continue to be evinced so long as the nail remains.

It will be observed, that the treatment I have described in the preceding pages, as applicable to the state of simple Ringworm; requires some modification in those long established cases, where great accumulation of scabs; portions of ulcerated surface; and a high degree of confirmed irritation of the vessels of the part exist. In a case of this kind the subject of the plate No. 1, and in several others of a similar description; the difficulties of subduing the excessive irritation of the disease were for a considerable period considered insurmountable. Fomentations, Poultices, and Cold Lotions; were successively, and diligently applied; each for a sufficient length of time to have produced under common circumstances,

an effectual check to inflammatory action. Still the redness and heat of the part remained obstinate, and where a few straggling hairs were seen, a constant production of new pustules were discovered, as fast as others were removed. A total extirpation of the remaining hair over the whole surface was eventually accomplished; the ulcerated portions healed; and the fluid secretion diminished: the inflammatory redness and heat of the part continued however; and around the healthy margin, new pustules and scabs affecting the sound hair were every day appearing.

The preceding applications with others of various descriptions, were changed one for another without success, till a small spot whence the hair had been first removed, was occupied by fresh; and immediately after pustules appeared among it. It appeared now, that any further attempts to get rid of the disease would be frustrated by the increased irritation of the new hair, which

might be speedily expected to spring up over the greater part of the surface: but except on the spot I have mentioned, no more hair appeared; and I was led, shortly after, to endeavour to apply pressure by means of adhesive straps and bandages, with the cold Lotion in conjunction. By the diligent application of these for two or three weeks, a material change was produced; and the scalp began to assume an appearance more nearly approaching to health. To completely subdue the diseased action was a work of much time; but I had the satisfaction of seeing eventually, (as I have already stated in a previous allusion to this case) the part completely covered with long and glossy hair.

In other cases of a similar character of four and six years standing, I have experienced proportionately smaller degrees of obstinacy; but in no single case has the plan last mentioned; pressure and cold applications combined; failed in subduing the disease. In the majority of these cases the necessity of

the extraction of the hair was frequently forced on my attention, by the obstinate repetition of pustules where any appeared on the diseased surface ; and I have consequently made this a preliminary step in every subsequent case to the above plan of treatment.

In the course of my observation of some of the cases to which I have alluded, I was led to imagine that the insertion of a Seton in the neck, where the discharge and excitement was very considerable ; would belikely to expedite the cure, and this on a very obvious principle : and I subsequently found in consulting a very old Author on the subject, that it had been recommended with a considerable degree of confidence. In two instances in which it was made use of however ; and where the violence of the irritation and excessive discharge seemed to justify the experiment ; no benefit appeared to be derived. One of these occurred in a child who had been a long time the subject of severe Entropium ; and the two diseases together, by their ceaseless irritation and pain ; may be supposed to

have formed a more complicated case of human misery, than often falls to our lot to observe. It is a curious fact in the history of this latter case ; that as soon as the disease of the scalp was completely removed, the inflammation and pain from the mischief in the Eyelids, almost entirely subsided.

The foregoing description of the local treatment of the disease comprehends every thing on which I am enabled from experience, to speak with decision. In condemning the use of greasy applications of any kind, which have not the power of destroying the infectious properties of the contents of the pustules, I am justified not only by reasoning *a priori* ; but by the evidence of facts : for I have frequently seen the disease spread with greater activity, after such applications, than before they were made use of.

The necessity of internal remedies in cases of simple Ringworm, or that stage of the disease usually seen in the middle and higher classes, where attention to the frequent cleaning of the children's heads is observed,

may with much propriety be doubted. It is certain that in such classes, we rarely trace the slightest connection of the disease with constitutional causes; but under different circumstances, as in cases approaching in similarity to that last alluded to; the occurrence of severe constitutional irritation may be expected, and a feverish state of the system is rarely absent. Constitutional treatment is of course then directed, to subdue symptoms consequent on the irritation of the disease, and not to correct a state of the system on which it may be supposed to depend.

The remarks of Mons. Alibert on this particular part of our subject, should be applied to the *Porrigio Favosa* almost exclusively, though in the article set apart for its consideration, such remarks appear to be directed to the whole of the species of the disease, and tend to fix a constitutional origin to them all. But it is apprehended that a ready concurrence with such an opinion, will not be yielded by the majority of practitioners, who have paid much attention to the disease in England.

CHAP. IV.

On Porrigo Favosa.

A very correct description of the characters of this disease has been given by Dr. Willan, which may be said to comprehend every thing necessary to enable us to recognize it under any of those little shades of varying feature which it occasionally assumes. The very large quantities of the secretion poured out from the diseased surface, and forming the scabs, would appear however, to be a sufficiently remarkable character of the disease to distinguish it from all others.

It derives its distinguishing epithet from the appearance of the pustule at its commencement, which is of the character denominated “Favus.” The aehores, or minute

pustules of the *P. Scutulata*, and the *Favi* of the present subject of consideration have been hitherto considered as varieties of the same genus, differing chiefly in magnitude: and as I have already taken the liberty to question the propriety of classing the two diseases together, I am bound to offer a few remarks on their essentially different characters.

The *achores* of the *P. Scutulata* which have been heretofore described, are in the first place, deeply seated in the cutis: and obviously occasioned by the irritation of the hair. The minute portion of the cutis where the pustules forms, is destroyed by the ulcerative process; which sometimes extends completely through it. The *Favi* on the other hand; occur on every part of the body—are in the majority of cases formed by the mere effusion of fluid, under the cuticle, from the vessels on the surface of the cutis: the distended cuticle forming the parietes of the pustule and being the only means of

retaining its contents in its place ; and ulceration of the cutis does not occur. The matter of one is deeply imbedded in the structure of the cutis—while that of the other lies on its surface. They are erroneously supposed to be the produce of the same infection, but the application of the matter of each only excites its own disease. In one the hair falls off ; in the other it is very little affected, nor is its removal, except by shaving, necessary to the cure.

The circumstances under which they originate, and on which their causes appear to depend, are also materially differing. It has been already observed, that the *P. Scutulata* usually appears as a merely local affection, and that it is not confined to any particular state of constitution or habit—but the *Favosa* only occurs in robust and apparently healthy constitutions* and I think generally where

* This remark, it will be observed, is intended to be applied to the disease in its spontaneous occurrence ; and not where it occurs under any suspicion of infection.

too great a fullness of the system is manifested. A too liberal allowance of animal food appears to be in children frequently contributing to produce it; and the disease will (if not situated on the scalp); generally be easily subdued by restriction from meat and the employment of a few doses of aperient medicine.

The *Porrigo Scutulata* according to the opinion of Dr. Willan, is often originating among children of scrofulous dispositions and who exhibit marks of general debility; and whether the correctness of this remark be admitted or not, as regards this affection, it is certain, that the *Favosa* is rarely indeed occurring spontaneously under such circumstances.

However readily it may appear to communicate, (by the application of its secretion to the healthy skin) a disease "*sui generis*," its *original* production, may be usually referred to constitutional disorder arising out of improper food and restriction from proper exercise. It may be perhaps not unsatisfactorily looked upon as the result of an effort of the constitution, to get rid of inconveniences arising from the above state.

The following description of the disease given to us by the above Author, may possibly enable the reader to discover other essential points of dissimilarity in comparing it with the description and remarks of *P. Scutulata* contained in a preceding page.

“ On the scalp, the pustules are large,
 “ soft, whitish, itching, and slightly inflamed
 “ at the base. At first they are distinct,
 “ and partially distributed, as on the side of
 “ the head, or about the occiput. When broken,
 “ they discharge a thick viscid matter,
 “ which gradually concretes into irregular
 “ brown, or yellowish, semi-transparent
 “ scabs. The ulcerations gradually extend
 “ with a constant and copious discharge,
 “ by which the scabs are kept moist, and
 “ the hairs are matted together. Under
 “ these circumstances *Pediculi*, which are
 “ bred in great numbers, produce an incessant
 “ irritation, and contribute to aggravate the disease, and to excite fresh
 “ pustules. The eruption finally covers

“ the whole scalp, the pustules, in some
 “ places, remaining distinct, in others be-
 “ coming confluent, so as to form irregular
 “ ulcerated blotches. From these, when
 “ the coverings or dressings of the head are
 “ removed, a sour, rancid vapour is exhaled,
 “ which affects very disagreeably, both the
 “ eyes, and the organs of smell and taste,
 “ in persons who examine, or dress the
 “ patient.

“ In many cases there are among the
 “ pustules, small, red smooth tumors, which
 “ desquamate at the top, and very gradually
 “ proceed to suppuration in the same man-
 “ ner as scrophulous tubercles do on the
 “ arms, &c. Sometimes large abscesses
 “ form near the vertex, or at the occiput,
 “ probably originating in lymphatic glands
 “ situated there. As soon as they are broken
 “ and begin to discharge freely, the pustular
 “ eruption, and small ulcers on the other
 “ parts of the scalp, disappear.

“ During the course of the *Porrigio favosa*

“ affecting the scalp, the glands on the sides
 “ of the neck, and sometimes the parotids,
 “ harden and enlarge very gradually. They
 “ are at first, like a series or chain of small
 “ hard knots, without discolouration of the
 “ skin, but some of them afterwards inflame
 “ and suppurate.

“ The *Porrigo favosa*, affecting the face,
 “ sometimes commences about the lips, or
 “ upon the chin; but at other times, ex-
 “ tends thither from the scalp, or from
 “ behind the ears. The pustules in general
 “ appear first at the corner of the mouth,
 “ without much tension or inflammation of
 “ the skin. They are set near together in
 “ an irregular cluster, and contain a straw-
 “ coloured fluid; when broken, they become
 “ confluent, and discharge a clear, viscid
 “ matter, which afterwards concretes into a
 “ yellowish scab. Other similar ulcerations
 “ appear soon afterwards at the opposite
 “ corner of the mouth, on the lips, or
 “ about the chin. These blotches being

“ attended with an incessant itching, chil-
 “ dren cannot be prevented from rubbing or
 “ picking them ; the consequence of which
 “ is, that their borders are kept sore, in-
 “ flamed, and continually extending. The
 “ complaint has a most unpleasant aspect,
 “ when the ulcerations entirely surround
 “ the mouth, and are covered with large,
 “ elevated, irregular masses of scab, like
 “ honeycombs. There seems to be a con-
 “ siderable degree of acrimony in the matter
 “ discharged from beneath the scabs ; for
 “ the part of the breast, which comes fre-
 “ quently in contact with the diseased chin,
 “ soon turns red, and exhibits an eruption
 “ of pustules, which terminate, as on the
 “ face, by a superficial ulceration. A simi-
 “ lar appearance is produced on the arms of
 “ the nurse, who attends a child affected
 “ with the complaint.

In removing the scabs of this disease,
 whether existing on the head, or other part ;
 we discover a reddened and inflamed surface,

pouring out with excessive rapidity a viscous transparent fluid, which speedily dries and forms fresh scabs of various shades of colour, from a transparent yellow, to dark brown. An areola of inflammatory redness, usually surrounds the part, as if the whole energies of the vessels of the diseased spot, and adjacent cutis were called forth in keeping up the fluid secretion.

This state of matters will be constantly found whenever the scabs are removed, in doing which a small quantity of blood sometimes flows from the surface. The fluid secretion however, at no time (except where constant irritation is kept up by picking the scabs, which children are accustomed to) appears like pus ; for it is not opake nor does its chemical analysis according to Alibert afford similar results. The surface is not ulcerated ; but merely abraded : the fluid as I have before observed, being poured out from the open mouths of its vessels.

In the management of this disease there

are few points of importance beyond those which are comprehended in attention to the general health. The state of system under which it usually occurs as a spontaneous disease, will be found more frequently to indicate the necessity for depletion and alteratives; rather than tonics, which have been recommended.

Applications which allay irritation and diminish pain, are useful auxiliaries; and these together will be found adequate to the necessities of any case of the disease, not occurring on the scalp. On this latter part however, obstacles intervene requiring some alteration of treatment. Here the disease may be considered as constantly under the influence of irritation from the hair, while the glutinous secretion lodging, and being retained upon it, prevents any application to the diseased surface, and becomes a source of mechanical irritation sufficiently powerful to counteract the effect which internal remedies may be supposed to have

in subduing it. In protracted cases, such as those detailed by Alibert and others, where the mischief and torment of the disease is aggravated by myriads of vermin, and the accumulation of weeks and months of the secretions of the part—where neglect and filth have contributed from the beginning all their influence to support the disease; the most material portion of our attention must be directed solely to the part. To remove such collections of filth, at the risk of some pain to the patient: the scabs in the first place, by continued soaking in warm water, with a plentiful use of soap, and the hair afterwards by the razor; are steps of absolute necessity: without which, our time and subsequent exertions may be fruitless.

In such cases too, a considerable extent of ulceration is sometimes discovered; though not often sufficiently deep to affect the roots of the hair. But whether ulceration exists or not, the use of fomentations and poultices are necessary to subdue the inflammatory action of

the vessels of the part; and when this has been effected a little attention to the general health is sometimes all that is necessary to the cure.

The length of time during which local applications may be necessary, however, depends very much on the period which the disease may have existed; for the action of the part acquires increased vigour with every week of its duration, and must frequently continue on the scalp a considerable length of time, after the causes originally producing it, have ceased to exist. And even when much care is taken to remove the secretion as soon as formed, and allay irritation by soothing remedies, the effusion of viscous fluid on the part is now and then still kept up, apparently dependant on a morbidly relaxed state of its vessels.

An effectual application will be found in a solution of caustic* or sulphate of copper

* R. Argent. nitr. ℥j.

Aq. distill. ℥j. M.

R. Cupri Sulph. ℥j.

Aq. ferv. ℥ss. M.

in such a case. These fluids are to be applied with a Camel's hair pencil to the abraded surface two or three times a day until the discharge ceases. They appear to act by constringing the relaxed vessels on the surface from which the discharge oozes ; and in some cases when their use appears necessary their strength may be considerably increased with advantage.

The remarkable distribution of small tumours among the favous pustules, when the disease appears on the scalp, noticed in the preceding quotation, is an almost peculiar feature of this species of the disease. They do not, however, appear to arise in the milder cases, but only where the diseased surface is very considerable, and the irritation proportionately great. The contents of these tumours after suppuration, vary very much in its characters, being in some cases apparently healthy pus ; and others the curdy substance of scrofulous abscesses ; but never resembling the viscous secretion of the disease. The little abscesses which they

terminate in, usually heal without difficulty, and those which have not suppurated, disappear as the irritation of the part subsides.

Like Ringworm, the *P. Favosa* spreads rapidly by infection through families of children, and it is not uncommon to see several of them inoculated from one child, around whose mouth one or two pustules may have appeared, and the contents have been applied to the lips and cheeks of its brothers and sisters in kissing them. The breasts of the nurse are not unfrequently inoculated in the same manner. On these accounts it becomes a matter of prudence to separate the children from each other, when the disease once appears among them, or to prevent the infection of the healthy, by more frequent ablutions than usual.

When a favous pustule has been produced by the application of matter in the foregoing manner, a speedy check to its course is often in our power. Its contents may be removed at once, and if the abrasion is of

sufficient consequence to require, and the situation of it admits of such application, a small poultice may be applied. If this cannot be made use of, the frequently washing the part with warm water will diminish the irritation, remove the secretion as fast as it is produced, and prevents the extension of the mischief.

CHAP. V.

On Porrigo Furfurans.

The usual appearance of this species of Porrigo when it first comes under the eye of the practitioner, is well represented in plate 38, of Bateman's *Delineations*. No separation of the hair is distinguished on a superficial view of the disease, as it is retained in its place after it has ceased to receive nourishment, by the adhesive properties of the secretion. The interstices of the hair appear to be occupied by a layer of furfuraceous scab of different degrees of dryness, the production conjointly, of the vessels producing the cuticle, and those pouring out the fluid of minute pustules, which, as in the *Porrigo Scutulata*, are formed round the hair.

The *Porrigo Furfurans* is said to commence with an eruption of small aches, “ the discharge from the pustules is small in quantity, and the excoriation slight: the humour therefore soon concretes and separates in innumerable thin laminated scabs or scale-like exfoliations.”

In a preceding page, I have alluded to the question of the origin of the *P. Scutulata* from long protracted or neglected *Pityriasis*, or other morbid scurfy states of the scalp; and I think the conclusion I have hinted at will derive some support from the examination of the most striking characteristic of the *P. Furfurans*. In this species of the disease, an accumulation of morbid cuticle, mixed up with, and partially dissolved, in the fluid secretions of the pustules, is a distinguishing feature; and it should appear that the proportion of fluid secretion to that of the vessels producing the morbid cuticle, determines the degree of approximation of the disease, to the common Ringworm, or simple *Pityriasis*.

Of the form of origin or cause of this disease, perhaps little can be confidently added. In two cases which I have had an opportunity of observing, there were many reasons to suspect an infection from the confirmed Scutulata, as the children who were the subjects of it, had slept with another who had been for some time the subject of the latter species. From the remarks of preceding authors, however, it appears like the Favosa, to be produced most frequently from constitutional causes; as it is described as extending in clusters of pustules even in its first appearance over the greater part of the scalp. On removing the covering which the diseased secretions form, a similarly excited state of the scalp is discovered, marked by heat and redness, which obtains in P. Scutulata, and the fluid secretion is found to originate as in this disease, in pustules surrounding the hairs. The moist and adhesive properties of the mixed secretions of this disease alike distinguish it from

the common scurf and the *P. Scutulata* : and much difficulty is experienced on account of these properties in separating it from the scalp. Even when the use of warm water and soap has been continued for some time, some violence is necessary to its removal so far as to shew the state of this part satisfactorily, and admit of the efficient application of remedies.

In the majority of cases of long standing, where the pustules are distributed very thick ; very little more pain is felt in plucking out the hair by the roots, than in the attempt to clear away the secretion, and the greater part of the hairs are found when drawn out, with the scurfy scales sticking to them, to have been insulated by pustules as in the *P. Scutulata*.

As the peculiar appearance of this species of *Porrigo* depends only on the participation of those vessels which produce the cuticle, in the general excitement of the part more largely than occurs in the *Scutulata* ; and as the general resemblance in other points ; of

these two species of the disease is almost sufficient to identify them ; no unsuccessful practice appears to arise in the adoption of the principles of treatment laid down in the preceding pages for the former, for the management of the latter. If the pain excited by the extraction of the hair is very considerable, (which is not often the case) it must be sometimes given up for a less successful, and indeed a mere palliative plan of treatment : for the removal of the hair by some means or other ; appears as necessary to the speedy and effectual cure of this species as of the other. When such practice is forbidden by the pain it produces ; it will be in spots where the disease is not fully established or where pustules are not formed in sufficient quantities to have loosened the hair : in which case the secretions should be patiently washed, or brushed out, from the interstices ; when shaving may be had recourse to ; and it will not be a matter of much difficulty after this has been satisfactorily

effected, to keep the scalp free from further accumulations. To attempt to shave the scalp completely however; when covered by the secretion, would be futile: the razor passes into it with no greater readiness than it would into half dissolved glue: and by persisting under these circumstances, the scalp is liable to be sliced and cut to a considerable extent and depth.

When by the removal of the hair or the scabs, and the operation of shaving; the scalp has been completely cleansed; its active inflammatory state will commonly yield to the persevering use of the cold wash. Now and then however, it will be found assuming, a considerable obstinacy of character: where the hair has not been drawn out by the roots, fresh pustules are constantly occurring; and the increased secretion of morbid cuticle continues: and where this precaution *has* been taken; though the formation of pustules or secretion of any fluid soon ceases, yet in this case even; the redness sometimes re-

mains, and the production of scurf continues.

Under those latter circumstances, an assiduous application of the spirituous lotion, and a frequent washing of the scalp with soap and warm water during the day, will, while it prevents accumulation of scurf, eventually subdue the inflammation; and restore the natural colour and healthy state of the part.

When this species of the disease has been of long duration, a scurfy state of the scalp usually continues after all appearance of pustules, of irritation, or fluid secretion, has ceased, and after new hair has grown on the part. To remove this inconvenience, a weak solution of lunar caustic has been recommended, and is very beneficial. A lotion of alcohol diluted, if employed alternately with this, will be an useful auxiliary.

In the common scurfy states of the scalp, this latter application will be generally, (if regularly persevered in for a short time) found

to supersede the necessity of any other ; and will effectually prevent that irritation of the part, by which such states are sometimes followed.

CHAP. VI.

On Porrigo Lupinosa.

The description of P. Lupinosa of Willan and Bateman, as it occurs on the scalp, seems to differ so little in essential points from that of common Ringworm, as to render it doubtful whether any distinctive appellation was necessary for this state of the discase. They both originate in minute aches, and both, when the contents of the pustules are allowed to dry on the part, exhibit scabs formed of the secretions, of similar characters.

On removing the scabs of either, when situated on the scalp, the aches will be found connected with the hair, and the pustules of the Lupinosa appear here to be produced from the same cause as in the

Scutulata, namely, the local irritation of the hair in the skin.

Cases of this (as I am disposed to consider it) variety, or stage of P. Scutulata, have been frequently under my notice. The descriptions of it, which I have alluded to, are sufficiently correct, as regards its appearance on the scalp, but perhaps not as it occurs on other parts of the body. A short description of a cutaneous affection contained in a preceding page, and stated to be connected with P. Scutulata, seems to me more applicable to diseased patches which I have seen occurring on the skin in other parts of the body ; when this latter affection, or the Lupinosa, have appeared on the scalp : and where an intimate connection between the diseases of the two parts, might reasonably be suspected.

Neither of the two affections when occurring in parts of the body not covered with hair, are of an obstinate character ; and with respect to the Lupinosa, its removal, when situated on such parts is easily effected by

adherence to the principles of treatment pointed out in our consideration of the *P. Scutulata*.

The chief difference as it appears to me, between the latter disease and the *Lupinosa*, is probably the mere result of a less irritable state of the skin, or some difference of constitution: as the *Lupinosa* though evincing all the other features of the *Scutulata*, does not show the same degree of excitement, and rapidity in its extension.

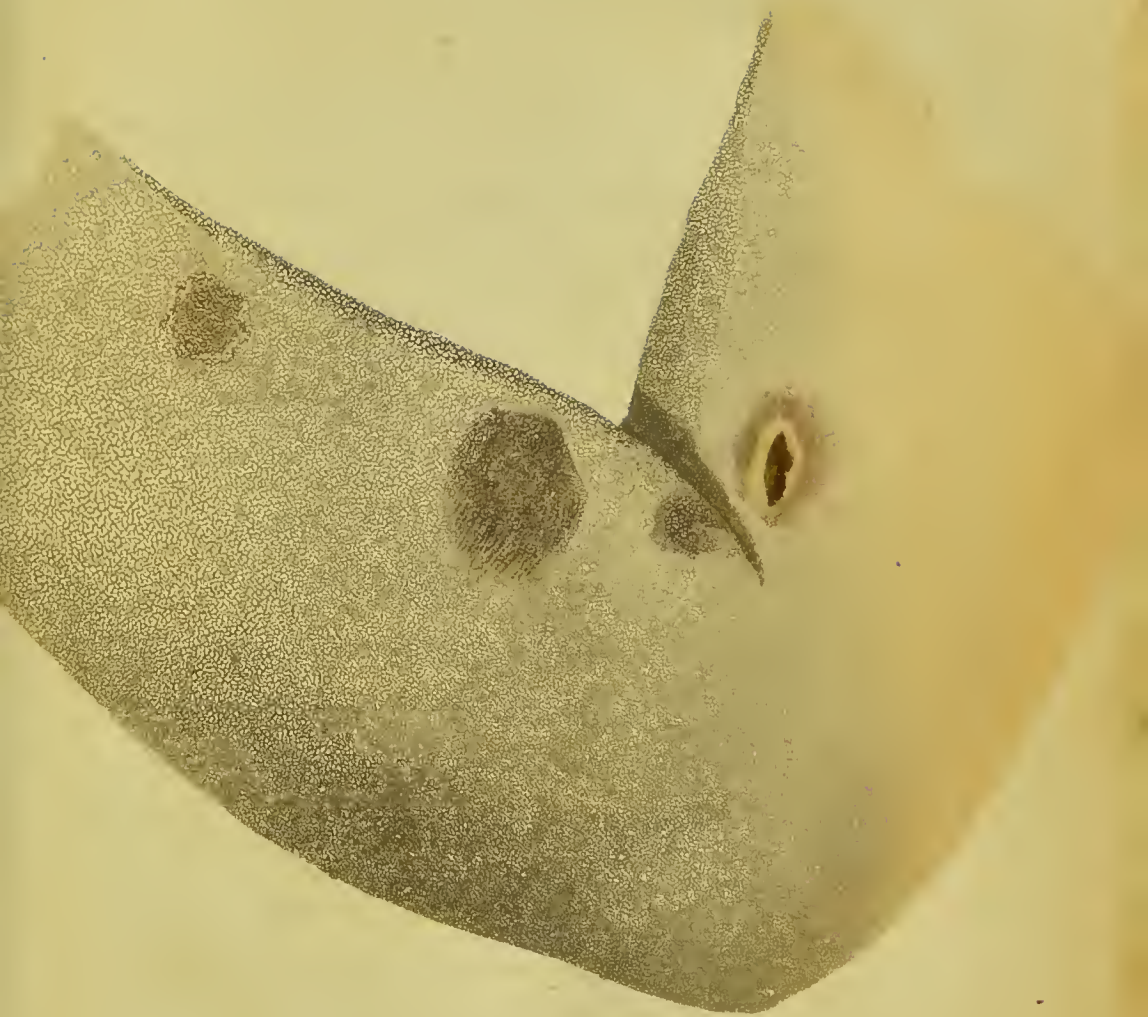
I have seen the *P. Lupinosa* moreover arising as the obvious consequence of the infection from confirmed Scalled Head, as alluded to in a preceding page.*

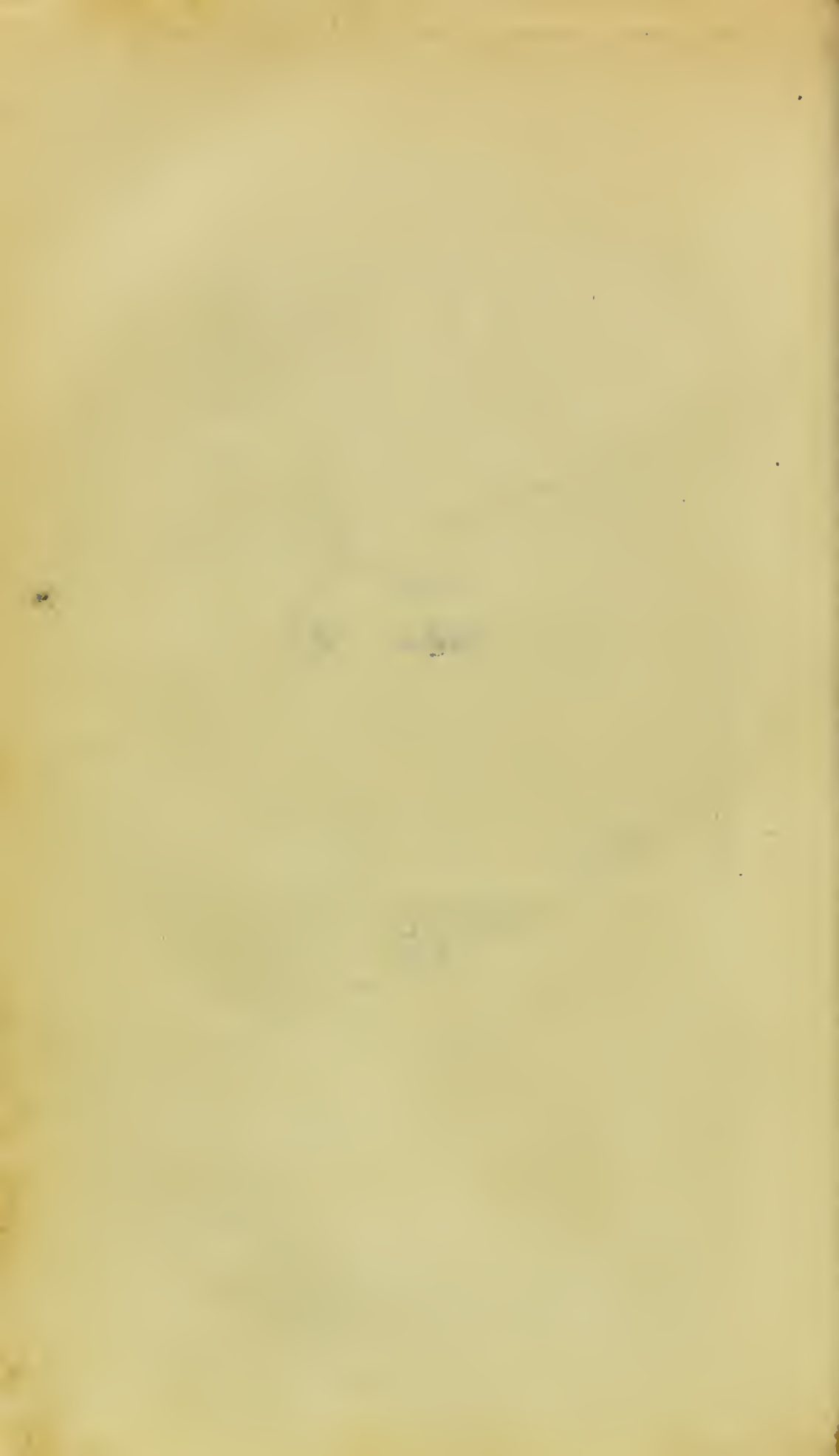
In concluding my remarks, it may appear superfluous to offer any thing further on the subject of strict attention to cleanliness in cases of *Porrigo*. The utility of such attention is obvious in all cutaneous diseases, and perhaps in this class more than any other. If

* Page 48.

obstacles arise from refractoriness of disposition in children, (who are in most cases the subjects of the disease), these should be overcome by some means or other : for there is not one of the whole class, which may not have its most unpleasant symptoms abated, and its extension checked, by constant attention to this point.

The dried scabs of the *Favosa* will be softened by frequent ablution with warm water and soap, and the irritation of the part materially reduced. An equally beneficial result will follow their employment in the *Scutulata* : while an effectual stop will be put to the extension of the mischief, by preventing the lodgment of the diseased secretions on other parts, a sufficient length of time for infection to take place.





Description of the Plates.

PLATE I.—Is intended to shew the effects of a long continued existence of *P. Scutulata* on the scalp, where no attention had been paid to it ; and the accumulation of scabs had been considerable. The disposition to form pustules is still remarkable among the small number of hairs which remain. The pustules are considerably larger than in common cases, in consequence of the very active inflammatory state of the part. An observation of the margin of the healthy scalp, above the diseased part, will shew the loss of thickness which the latter has sustained, and the nature of its deviation from the healthy state in other respects. In one or two small spots the cutis had been actually ulcerated and the structure secreting the hair consequently destroyed. The other parts of the diseased portion are at the present period covered with healthy hair, of its original strength and colour.

It is proper to state that the remaining hair shewn in the plate was subsequently extirpated : this single case therefore may be considered sufficient to justify the inferences drawn in page 66, &c. vide note in page 33 and 48.

PLATE II.—For a Description of this Plate see note in page 8.

ERRATA.

- Page 51, line 3, after "*centre*" read "*are remembered.*"
53, — 6, for "*the part*" read "*the latter part.*"
—, — 18, for "*itis observed*" read "*the hair is observed.*"
99, — 6, after "*day*" read "*in conjunction.*"